

JC13 Rec'd PCT/PTO 23 JAN 2002

FORM PTO-1390 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER: 0519-1004 U.S. APPLICATION NO. (if known, see 37 CFR 75) 10/031587
INTERNATIONAL APPLICATION NO.: PCT/FR00/02111	INTERNATIONAL FILING DATE: 21 JULY 2000	PRIORITY DATE CLAIMED: 23 JULY 1999
TITLE OF INVENTION: METHOD OF MANUFACTURING A TUBULAR ELEMENT, AND TUBULAR ELEMENT THUS OBTAINED		
APPLICANT(S) FOR DO/EO/US: Ghislain PASSEBECQ		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information.		
1. <input checked="" type="checkbox"/> 2. <input type="checkbox"/> 3. <input checked="" type="checkbox"/> 4. <input checked="" type="checkbox"/> 5. <input checked="" type="checkbox"/> a. <input checked="" type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> 6. <input checked="" type="checkbox"/> 7. <input type="checkbox"/> a. <input type="checkbox"/> b. <input type="checkbox"/> c. <input type="checkbox"/> d. <input type="checkbox"/> 8. <input type="checkbox"/> 9. <input type="checkbox"/> 10. <input type="checkbox"/> Item 11. to 16. below concern document(s) or information included:	This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. A copy of the International Application as filed (35 U.S.C. 371(c)(2)) a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. (see attached copy of PCT/IB/308) c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). A translation of the International Application into English (35 U.S.C. 371(c)(2)). Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)). a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). A translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). An Information Disclosure Statement under 37 CFR 1.97 and 1.98. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. A FIRST preliminary amendment. A SECOND or SUBSEQUENT preliminary amendment. A substitute specification. A change of power of attorney and/or address letter. Other items or information:	
International Search Report Abstract of the Disclosure on a Separate Sheet Application Data Sheet		

U.S. APPLICATION NO (if known see 37 CFR 1.51) 10/031587		INTERNATIONAL APPLICATION NO PCT/FR00/02111		ATTORNEY'S DOCKET NO. 0519-1004	
17. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$ 1,040.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$ 890.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$ 740.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$ 710.00 International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$ 100.00				CALCULATIONS PTO USE ONLY	
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$	890.00
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	130.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	6 - 20 =	0	X \$18.00	\$	
Independent claims	1 - 3 =	0	X \$84.00	\$	
MULTIPLE DEPENDENT CLAIMS(S) (if applicable)			+ \$280.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$	1,020.00
Reduction of 1/2, if applicant is entitled to Small Entity status under 37 CFR 1.27.				+	\$
SUBTOTAL =				\$	1,020.00
Processing fee of \$130 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$	1,020.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$
TOTAL FEES ENCLOSED =				\$	1,020.00
				Amount to be refunded:	
				charged:	
a.	<input checked="" type="checkbox"/>	A check in the amount of \$ 1,020.00 to cover the above fees is enclosed.			
b.	<input type="checkbox"/>	Please charge my Deposit Account No. 25-0120 in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed.			
c.	<input checked="" type="checkbox"/>	The Commissioner is hereby authorized to charge any additional fees which may be required by 37 CFR 1.16 and 1.17, or credit any overpayment to Deposit Account No. 25-0120 . A duplicate copy of this sheet is enclosed.			
SEND ALL CORRESPONDENCE TO.					
CUSTOMER NO. 00466 YOUNG & THOMPSON 745 South 23rd Street 2nd Floor Arlington, VA 22202 (703) 521-2297 facsimile (703) 685-0573		January 23, 2002		By <u>Benoit Castel</u> Benoit Castel Attorney for Applicant Registration No. 35,041	

Supplemental Application Data Sheet**Application Information**

Application Type::	Regular
Subject Matter::	Utility
Suggested Classification::	
Suggested Group Art Unit::	
CD-ROM or CD-R?::	None
Number of CD disks::	
Number of Copies of CDs::	
Sequence Submission?::	None
Computer Readable Form (CRF)::	No
Number of copies of CRF::	0
Title::	METHOD OF MANUFACTURING A TUBULAR ELEMENT, AND TUBULAR ELEMENT THUS OBTAINED
Attorney Docket Number::	0519-1004
Request for Early Publication?::	No
Request for Non-Publication?::	No
Suggested Drawing Figure::	
Total Drawing Sheets::	1
Small Entity?::	No
Latin Name::	
Variety Denomination Name::	
Petition Included?::	No
Petition Type::	
Licensed US Gov't Agency::	
Contract or Grant Numbers::	
Secrecy Order in Parent Appl.?::	No

Applicant Information

Applicant Authority Type:: Inventor
 Primary Citizenship Country:: FRANCE
 Status:: Full Capacity
 Given Name:: GHISLAIN
 Middle Name::
 Family Name:: PASSEBECQ
 City of Residence:: TRAPPES NEAUPHLE LE VIEUX
 State or Province of Residence::
 Country of Residence:: FRANCE
 Street of Mailing 18, RUE EDOUARD BRANLY
 Address:: Z.I. DE PISSALOU 2 RUE BASSE
 City of Mailing Address:: TRAPPES NEAUPHLE LE VIEUX
 State or Province of Mailing Address::
 Country of Mailing Address:: FRANCE
 Postal or Zip Code of Mailing Address:: 78190 78640

Correspondence Information

Correspondence Customer Number:: 000466

Representative Information

Representative Customer Number::	000466
----------------------------------	--------

Domestic Priority Information

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This applicatio	National Stage of	PCT/FR00/02111	7/21/00

Foreign Priority Information

Country::	Application Number::	Filing Date::	Priority Claimed::
FRANCE	99/09753	7/23/99	Yes

Assignment Information

Assignee Name::

Street of Mailing

Address::

City of Mailing Address::

State or Province of Mailing Address::

Country of Mailing Address::

Postal or Zip Code of Mailing Address::

PATENT
0519-1004

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of: Ghislain PASSEBECQ

Appl. No.:

Group:

Filed:

January 23, 2002

Examiner:

For: METHOD OF MANUFACTURING A TUBULAR ELEMENT,
AND TUBULAR ELEMENT THUS OBTAINED

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

January 23, 2002

Sir:

The following preliminary amendments and remarks are respectfully submitted in connection with the above-identified application.

IN THE CLAIMS:

Please amend the claims as follows:

--3. (amended) Method according to Claim 1, characterised in that the two half-shells (5 and 6) constituting the tubular element or crosspiece (1, 1A) are obtained by stamping from sheet steel, aluminium or magnesium, according to defined and complementary profiles.--

--4. (amended) Method according to Claim 1, characterised in that the concave or convex leaktightness deformation (8) produced on each of the outer longitudinal

edges (5a, 6a - 5b, 6b) of the two half-shells (5 and 6) is obtained by way of a V-shaped stamping punch, deforming the said edges simultaneously in order to obtain two profiles (8a, 8b) matching each other perfectly and of corresponding shapes.--

--5. (amended) Method according to Claim 1, characterised in that the tubular element (1A) is a motor-vehicle front crosspiece, of which the half-shells (5, 6, 9) constituting it are shaped in such a way as to define two air ducts (3 and 4), which are independent of one another, for example one for deicing, the other for ventilation.--

--6. (amended) Motor-vehicle front crosspiece, able to constitute at least one duct (3, 4), characterised in that it is produced according to the method of Claim 1.--

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS:

The claims have been amended as follows:

3. Method according to Claim ~~1 or 2~~, characterised in that the two half-shells (5 and 6) constituting the tubular element or crosspiece (1, 1A) are obtained by stamping from sheet steel, aluminium or magnesium, according to defined and complementary profiles.

4. Method according to ~~any one of claims 1 to 3~~, Claim 1, characterised in that the concave or convex leaktightness deformation (8) produced on each of the outer longitudinal edges (5a, 6a - 5b, 6b) of the two half-shells (5 and 6) is obtained by way of a V-shaped stamping punch, deforming the said edges simultaneously in order to obtain two profiles (8a, 8b) matching each other perfectly and of corresponding shapes.

5. Method according to ~~any one of claims 1 to 4~~, Claim 1, characterised in that the tubular element (1A) is a motor-vehicle front crosspiece, of which the half-shells (5, 6, 9) constituting it are shaped in such a way as to define two air ducts (3 and 4), which are independent of one another, for example one for deicing, the other for ventilation.

6. Motor-vehicle front crosspiece, able to constitute at least one duct (3, 4), characterised in that it is produced according to the method of ~~Claims 1 to 5~~. Claim 1.

ABSTRACT OF THE DISCLOSURE

A method for making a tubular element, in particular a motor vehicle front cross member (1), for forming at least an air conduit (2,3,4) including at least two half-shells (5,6) assembled on two outer longitudinal edges (5a, 6a - 5b, 6b), facing each other, with punctiform mechanical bond elements (7). The method further comprises the production of sealing elements (8) for the tubular element (1) consisting of at least a continuous convex or concave deformation simultaneously produced on each of the outer longitudinal edges (5a, 6a - 5b, 6b) facing the two half-shells (5 and 6), in the proximity of the mechanical bond elements (7).

TITLE: Method of manufacturing a tubular element, and tubular element thus obtained.

The present invention relates to a method of manufacturing a tubular element.

5 It will find an application, for example, in constituting a motor-vehicle front crosspiece, deliberately designed to be hollow, in such a way as not only to reinforce the passenger compartment of the vehicles transversely, but also to facilitate the installation
10 of an air-conditioning unit, especially, and advantageously to define one or more air ducts, such as ducts for deicing the windscreen and/or for ventilating the passenger compartment of the vehicle.

 The crosspieces of this type consist, in a known
15 way, of at least two half-shells assembled together by way of two outer, facing longitudinal edges, emerging from the two half-shells, these longitudinal edges being joined together by local mechanical-linking means, such as staples, rivets, spot welds, etc.

20 It will be understood that such a method of assembly at individual points does not make it possible to obtain the leaktightness of a duct the role of which should be to transport air. In fact, the air easily infiltrates between the longitudinal edges of the shells,
25 which have been left free between two consecutive assembling points.

 In order to avoid such a drawback, it is known to produce this type of crosspiece from a profiled section obtained by extrusion. This solution, although
30 giving excellent results, nevertheless presents the drawback of making it necessary to have recourse to more sophisticated techniques, and is consequently reserved only for vehicles the structure of which allows it.

35 Other known solutions may come to mind for solving the problem posed, such as crimping the ends of the

two outer longitudinal edges of the half-shells onto each other, for example.

It is also possible to form a longitudinal weld bead on the same longitudinal edges, or else to interpose a flexible gasket between them, and to carry out an operation of spot welding, in such a way as to obtain the required leaktightness.

However, all these solutions have the drawback of being expensive to implement due to the very nature of the processes, entailing the use of specific hardware and requiring lengthy labour times.

The object of the present invention is to remedy these various drawbacks, by proposing a method which is simple in its implementation and inexpensive.

To that end, the invention relates to a method of manufacturing a tubular element, especially a motor-vehicle front crosspiece, able to constitute at least one air duct, of the type comprising at least two half-shells assembled onto two facing outer longitudinal edges, by local mechanical-linking means, characterised in that it further incorporates the production of leaktightness means of the said tubular element which consist of at least one continuous, convex or concave deformation, formed simultaneously on each of the facing outer longitudinal edges of the two half-shells, in the vicinity of the mechanical-linking means.

The present invention also relates to the characteristics which will emerge in the course of the description which will follow and which should be considered in isolation or according to all their technically possible combinations.

This description, given by way of non-limiting example, will give a better understanding of how the invention can be implemented, by reference to the attached drawings, among which:

- Figure 1 is a diagrammatic representation in cross-section of a motor-vehicle crosspiece integrated into a dashboard,

5 - Figure 2 is a view in cross-section of a crosspiece according to a first embodiment example,

- Figure 3 is a diagrammatic view in cross-section of a crosspiece according to a second embodiment example possibly corresponding to that of Figure 1,

10 - Figure 4 is a view on an enlarged scale, in perspective, of the assembly and leaktightness region of a crosspiece according to one of the examples of Figures 2 and 3.

The method according to the invention applies to
15 the manufacture of a tubular element in general. In particular, according to the present example, the method allows the production of a motor-vehicle front and crosspiece 1 which, moreover, is able to constitute one or two air ducts.

20 Thus, according to the example of Figures 1 and 3, the crosspiece 1 constitutes a first deicing duct 3 and a second ventilation duct 4 whereas, according to a simplified example, represented in Figure 2, the crosspiece constitutes only a ventilation duct 2. However,
25 the invention applies as much to one or the other of the cases.

According to the example of Figure 2, the crosspiece 1A consists of two half-shells 5 and 6, assembled to each other by way of two outer longitudinal edges
30 5a, 6a - 5b, 6b, produced face-to-face and in fact consisting of extensions of the sides of the half-shells 5 and 6. These are arranged with respect to one another so as to define the air duct 2.

They are assembled by local mechanical-linking
35 means, especially by "clinching", in fact constituting tacking by mechanical deformation of the materials.

Needless to say, other local mechanical-linking means could be envisaged such as the fitting of rivets, for example, or else the forming of spot welds.

The method according to the invention, in addition to the mechanical-linking means which have just been quoted, incorporates the production of leaktightness means 8 associated with the said local mechanical-linking means. These consist of at least one continuous, convex or concave deformation, produced simultaneously on each of the facing outer longitudinal edges 5a, 6a - 5b, 6b of the two half-shells 5 and 6. These leaktightness means are advantageously produced in the vicinity of the mechanical-linking means 7.

Although these leaktightness means 8 could be associated with any mechanical-linking means, provided they are local means, preference will advantageously be given to mechanical-linking means obtained especially by tacking, by mechanical deformation known as "clinching" in such a way that the continuous, concave or convex, deformation 8 of the lateral edges 5a, 6a - 5b, 6b can be obtained simultaneously with the said mechanical-linking or clinching means 7, in the course of a single stamping operation, while separating their respective function of leaktightness and of assembling.

The concave or convex leaktightness deformation 8 produced on each of the outer longitudinal edges 5a, 6a - 5b, 6b of the two half-shells 5 and 6 is obtained by way of a stamping punch, especially a V-shaped punch (not represented), deforming the said edges simultaneously in order to obtain two profiles 8a, 8b matching each other perfectly and of corresponding shapes to that of the punch.

Furthermore, such a deformation, in addition to the leaktightness sought, achieves increased rigidity in this region, since the deformation 8 also constitutes a rib.

The two half-shells 5 and 6, constituting the tubular element or crosspiece 1, are obtained by stamping from sheet steel, aluminium, magnesium, or other materials, especially metallic materials, according to defined and complementary profiles.

According to the example of Figure 3, the tubular element 1A is a motor-vehicle front crosspiece, of which the half-shells 5, 6 and an intermediate element 9 constituting it are shaped in such a way as to define two air ducts 3 and 4, which are independent of one another, for example one for deicing, the other for ventilation.

In fact, the embodiment of Figure 3 differs essentially with respect to that of Figure 2 in that an intermediate element 9 is interposed between the half-shells 5 and 6, these end edges 9a, 9b being interposed between the edges 5a and 6a, on the one hand, and the edges 5b, 6b, on the other hand, of the half-shells 5 and 6.

Although what is involved is a crosspiece 1a according to Figure 2, including a single air duct 2, or a crosspiece 1 according to Figure 3 including two air ducts 3 and 4, the said crosspiece is designed in such a way as also to accommodate any type of apparatus, such as an air-conditioning unit 10, for example, a loudspeaker 11, etc.

CLAIMS

1. Method of manufacturing a tubular element, especially a motor-vehicle front crosspiece (1), able to
5 constitute at least one air duct (2, 3, 4), of the type comprising at least two half-shells (5, 6) assembled onto two facing outer longitudinal edges (5a, 6a - 5b, 6b), by local mechanical-linking means (7), characterised in that it further incorporates the production of
10 leaktightness means (8) of the said tubular means (1) which consist of at least one continuous, convex or concave deformation formed simultaneously on each of the facing outer longitudinal edges (5a, 6a - 5b, 6b) of the two half-shells (5 and 6), in the vicinity of
15 the mechanical-linking means (7).

2. Method according to Claim 1, characterised in that the mechanical-linking means, consisting of local mechanical deformations (7), and the continuous, concave or convex deformation (8) of the lateral edges
20 (5a, 6a - 5b, 6b), forming the leaktightness means, are obtained simultaneously in the course of a single stamping operation, while separating their respective functions of leaktightness and of assembling.

3. Method according to Claim 1 or 2, characterised
25 in that the two half-shells (5 and 6) constituting the tubular element or crosspiece (1, 1A) are obtained by stamping from sheet steel, aluminium or magnesium, according to defined and complementary profiles.

4. Method according to any one of claims 1 to 3,
30 characterised in that the concave or convex leaktightness deformation (8) produced on each of the outer longitudinal edges (5a, 6a - 5b, 6b) of the two half-shells (5 and 6) is obtained by way of a V-shaped stamping punch, deforming the said edges simultaneously
35 in order to obtain two profiles (8a, 8b) matching each other perfectly and of corresponding shapes.

5. Method according to any one of claims 1 to 4, characterised in that the tubular element (1A) is a motor-vehicle front crosspiece, of which the half-shells (5, 6, 9) constituting it are shaped in such a way as to define two air ducts (3 and 4), which are independent of one another, for example one for deicing, the other for ventilation.

6. Motor-vehicle front crosspiece, able to constitute at least one duct (3, 4), characterised in that it is produced according to the method of Claims 1 to 5.

(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION
EN MATIÈRE DE BREVETS (PCT)(19) Organisation Mondiale de la Propriété
Intellectuelle
Bureau international(43) Date de la publication internationale
1 février 2001 (01.02.2001)

PCT

(10) Numéro de publication internationale
WO 01/07179 A1(51) Classification internationale des brevets⁷: **B21C 37/15**,
B21D 47/04(21) Numéro de la demande internationale:
PCT/FR00/02111

(22) Date de dépôt international: 21 juillet 2000 (21.07.2000)

(25) Langue de dépôt: français

(26) Langue de publication: français

(30) Données relatives à la priorité:
99/09753 23 juillet 1999 (23.07.1999) FR(71) Déposant (pour tous les États désignés sauf US): **PLAS-
TIC OMNIUM VALEO INTERIORS** [FR/FR]; 8, rue
Louis Lormand, F-78320 La Verrière (FR).

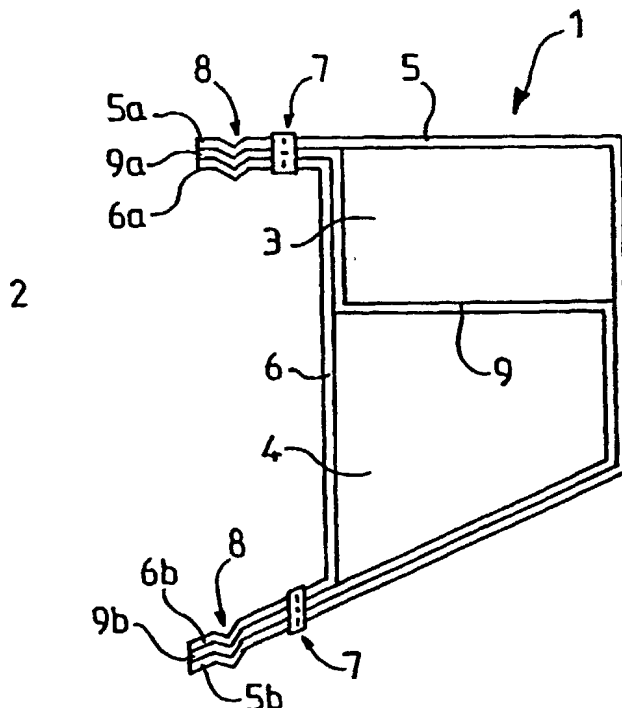
(72) Inventeur; et

(75) Inventeur/Déposant (pour US seulement): **PASSE-
BECQ, Ghislain** [FR/FR]; Plastic Omnium Valeo
Interiors, 18, rue Edouard Branly, Z.I. de Pissaloup,
F-78190 Trappes (FR).(74) Mandataire: **DUTHOIT, Michel**; Bureau Duthoit Legros
Associés, 96/98, Boulevard Carnot, Boîte postale 105,
F-59027 Lille Cedex (FR).(81) États désignés (national): AE, AG, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,
DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZW.

[Suite sur la page suivante]

(54) Title: METHOD FOR MAKING A TUBULAR ELEMENT AND RESULTING TUBULAR ELEMENT

(54) Titre: PROCEDE DE FABRICATION D'UN ELEMENT TUBULAIRE ET ELEMENT TUBULAIRE AINSI OBTENU



(57) Abstract: The invention concerns a method for making a tubular element, in particular a motor vehicle front cross member (1), for forming at least an air conduit (2, 3, 4) comprising at least two half-shells (5, 6) assembled on two outer longitudinal edges (5a, 6a - 5b, 6b), facing each other, with punctiform mechanical bond means (7). The invention is characterised in that it further comprises the production of sealing means (8) for the tubular element (1) consisting of at least a continuous convex or concave deformation simultaneously produced on each of the outer longitudinal edges (5a, 6a - 5b, 6b) facing the two half-shells (5 and 6), in the proximity of the mechanical bond means (7).

(57) Abrégé: La présente invention concerne un procédé de fabrication d'un élément tubulaire, notamment, traverse avant (1) de véhicule automobile, apte à constituer au moins un conduit d'air (2, 3, 4), du type comprenant au moins deux demi-coquilles (5, 6) assemblées sur deux bords longitudinaux externes (5a, 6a - 5b, 6b), en vis-à-vis, par des moyens ponctuels de liaison mécanique (7), caractérisé en ce qu'il intègre en outre la réalisation de moyens d'étanchéité (8) dudit moyen tubulaire (1) qui sont constitués par au moins une déformation continue, convexe ou concave, réalisée simultanément sur chacun des bords longitudinaux externes (5a, 6a - 5b, 6b) en vis-à-vis des deux demi coquilles (5 et 6), au voisinage des moyens de liaison mécanique (7).

WO 01/07179

PCT/FR00/02111

1/1

FIG.1

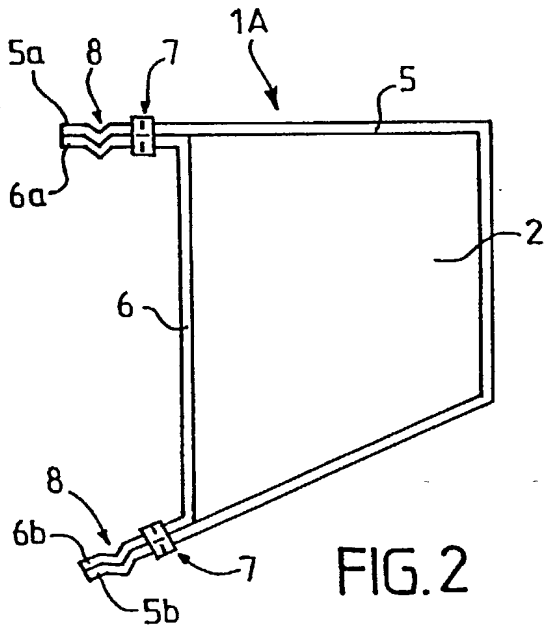
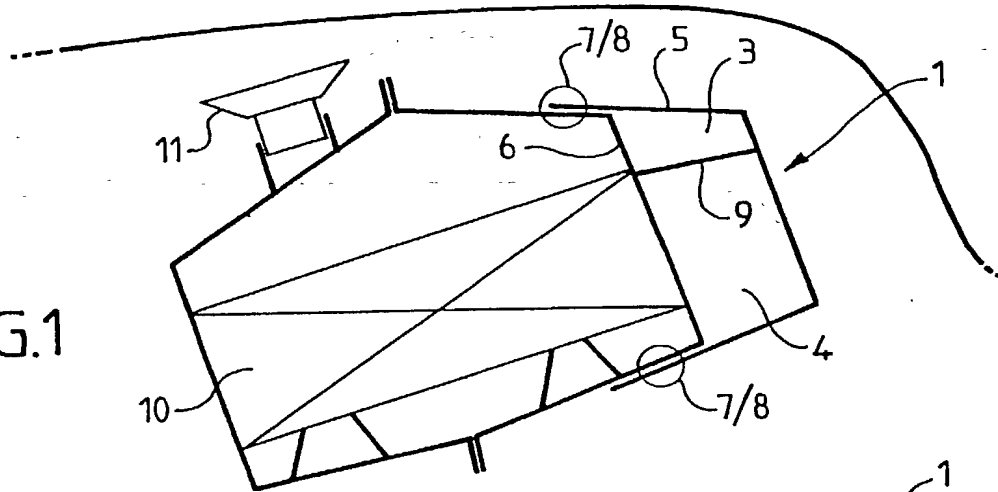


FIG.2

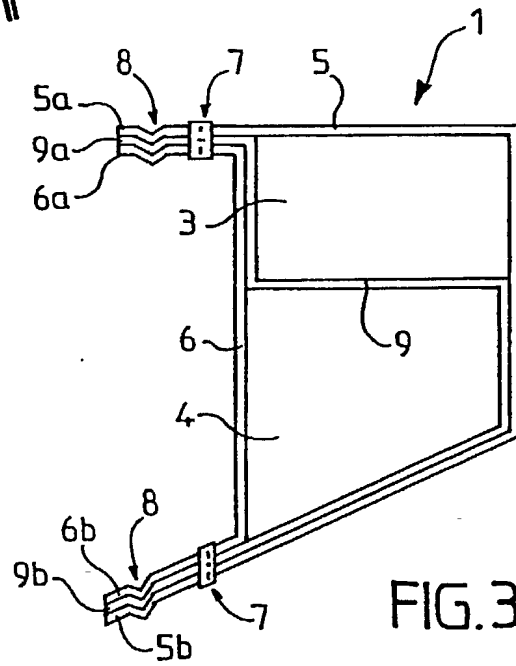


FIG.3

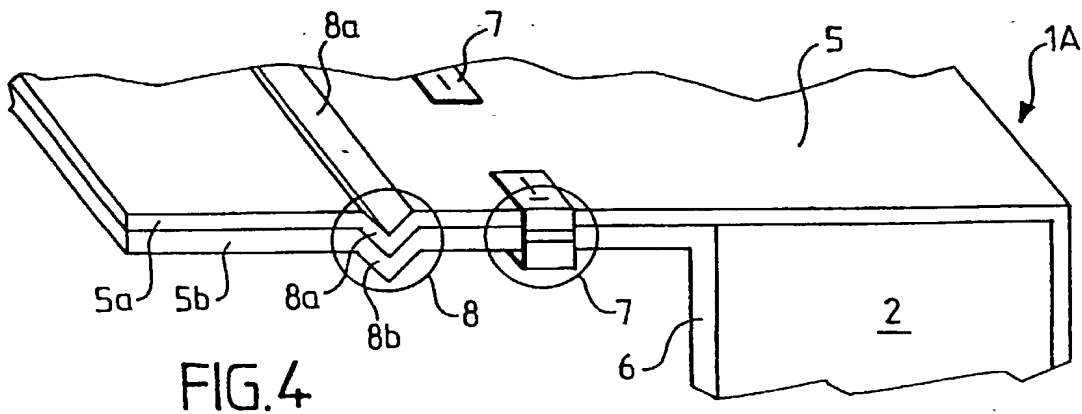


FIG.4

Declaration and Power of Attorney for Patent Application

Déclaration et Pouvoirs pour Demande de Brevet

En tant que l'inventeur nommé ci-après, je déclare par le présent acte que:

Mon domicile, mon adresse postale et ma nationalité sont ceux figurant ci-dessous à côté de mon nom.

Je crois être le premier inventeur original et unique (si un seul nom est mentionné ci-dessous), ou l'un des premiers co-inventeurs originaux (si plusieurs noms sont mentionnés ci-dessous) de l'objet revendiqué, pour lequel une demande de brevet a été déposée concernant l'invention intitulée

"Procédé de fabrication d'un élément tubulaire et élément tubulaire ainsi obtenu"

et dont la description est fournie ci-joint à moins que la case suivante n'ait été cochée:

- ☒ a été déposée le 23 janvier 2002 sous le numéro de demande des Etats-Unis 10/031,587 ou le numéro de demande international PCT et modifiée le (le cas échéant).

Je déclare par le présent acte avoir passé en revue et compris le contenu de la description ci-dessus, revendications comprises, telles que modifiées par toute modification dont il aura été fait référence ci-dessus.

Je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations.

Je revendique par le présent acte avoir la priorité étrangère, en vertu du Titre 35, § 119(a)-(d) ou § 365(b) du Code des Etats-Unis, sur toute demande étrangère de brevet ou certificat d'inventeur ou, en vertu du Titre 35, § 365(a) du même Code, sur toute demande internationale PCT désignant au moins un pays autre que les Etats-Unis et figurant ci-dessous et, en cochant la case, j'ai aussi indiqué ci-dessous toute demande étrangère de brevet, tout certificat d'inventeur ou toute demande internationale PCT ayant une date de dépôt précédant celle de la demande à propos de laquelle une priorité est revendiquée.

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

"Method of manufacturing a tubular element and tubular element thus obtained"

the specification of which is attached hereto unless the following box is checked:

- ☒ was filed on January 23, 2002 as United States Application Number 10/031,587 or PCT International Application Number and was amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365 (b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed.

Prior foreign application(s) Demande(s) de brevet antérieure(s) 9909753 FRANCE 23/07/1999 (Number) (Numéro) (Country) (Pays) (Day/Month/Year Filed) (Jour/Mois/Année de dépôt)		Priority Claimed Droit de priorité revendiqué <input checked="" type="checkbox"/>
(Number) (Numéro) (Country) (Pays) (Day/Month/Year Filed) (Jour/Mois/Année de dépôt)		<input type="checkbox"/>
Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 119(e) du Code des Etats-Unis, de toute demande de brevet provisoire effectuée aux Etats-Unis et figurant ci-dessous.		I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.
(Application No.) (N° de demande)	(Filing Date) (Date de dépôt)	
(Application No.) (N° de demande)	(Filing Date) (Date de dépôt)	
Je revendique par le présent acte tout bénéfice, en vertu du Titre 35, § 120 du Code des Etats-Unis, de toute demande de brevet effectuée aux Etats-Unis, ou en vertu du Titre 35, § 365(c) du même Code, de toute demande internationale PCT désignant les Etats-Unis et figurant ci-dessous et, dans la mesure où l'objet de chacune des revendications de cette demande de brevet n'est pas divulgué dans la demande antérieure américaine ou internationale PCT, en vertu des dispositions du premier paragraphe du Titre 35, § 112 du Code des Etats-Unis, je reconnais devoir divulguer toute information pertinente à la brevetabilité, comme défini dans le Titre 37, § 1.56 du Code fédéral des réglementations, dont j'ai pu disposer entre la date de dépôt de la demande antérieure et la date de dépôt de la demande nationale ou internationale PCT de la présente demande:		I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.
PCT/FR00/02111	July 21, 2000	Status/Statut
(Application No.)	(Filing Date)	(Status)
(N° de demande)	(Date de dépôt)	(Statut)
(Application No.)	(Filing Date)	Status/Statut
(N° de demande)	(Date de dépôt)	(Status)
		(Statut)
Je déclare par le présent acte que toute déclaration ci-incluse est, à ma connaissance, véridique et que toute déclaration formulée à partir de renseignements ou de suppositions est tenue pour véridique; et de plus, que toutes ces déclarations ont été formulées en sachant que toute fausse déclaration volontaire ou son équivalent est passible d'une amende ou d'une incarcération, ou des deux, en vertu de la Section 1001 du Titre 18 du Code des Etats-Unis, et que de telles déclarations volontairement fausses risquent de compromettre la validité de la demande de brevet ou du brevet délivré à partir de celle-ci.		I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Power Of Attorney:**Pouvoirs:**

Le soussigné autorise par les présentes l'avocat ou mandataire américain ici désigné d'accepter et d'agir en conformité avec les instructions de RINUY, SANTARELLI

en ce qui concerne toute démarche à entreprendre devant l'Office des Brevets et des Marques relative à cette demande sans communication directe entre l'avocat ou mandataire américain désigné et le soussigné. En cas de changement de donneur d'instructions, le soussigné en informera l'avocat ou mandataire américain ici désigné.

En tant que l'inventeur cité, je désigne par la présente l'(les) avocat(s) et/ou agent(s) suivant(s) pour qu'ils poursuive(nt) la procédure de cette demande de brevet et traite(nt) toute affaire s'y rapportant avec l'Office des brevets et des marques:

The undersigned hereby authorizes the U.S. attorney or agent named herein to accept and follow instructions from

RINUY, SANTARELLI

as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, the U.S. attorney or agent named herein will be so notified by the undersigned.

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Robert J. PATCH, Reg. No. 17,355; Andrew J. PATCH, Reg. No. 32,925; Benoît CASTEL, Reg. No. 35,041; Thomas W. PERKINS, Reg. No. 33,027; Roland E. LONG, Jr., Reg. No. 41,949; Eric JENSEN, Reg. No. 37,855; Liam MCDOWELL, Reg. No. 44,231; and J. Reed BATTEN, Jr., Reg. No. 27,099

c/o Young & Thompson
Second Floor
745 South 23rd Street
Arlington, VA 22202

Address all telephone calls to Young & Thompson at 703-521-2297. Telefax: 703-685-0573

Nom complet de l'unique ou premier inventeur

Full name of sole or first inventor

Ghislain PASSEBECQ

Signature de l'inventeur

Date

May 24th 2002

Inventor's signature

Date

Domicile

Residence

78640 NEAUPHLE LE VIEUX

France

(précédemment 78190 TRAPPES, France) JRL

Nationalité

Citizenship

Français

Adresse postale

Post Office Address

2, rue Basse

78640 NEAUPHLE LE VIEUX

France

(précédemment 18, rue Edouard Branly

z.i. de Pissaloup

78190 TRAPPES, France

Nom complet du second co-inventeur, le cas échéant

Full name of second inventor, if any

Signature de l'inventeur

Date

Inventor's signature

Date

Domicile

Residence

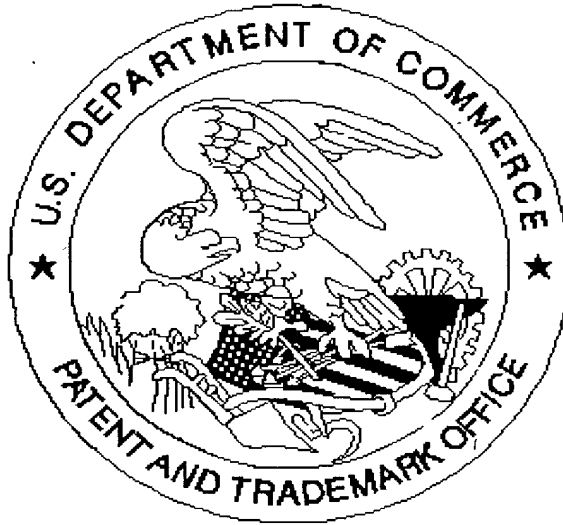
Nationalité

Citizenship

Adresse postale

Post Office Address

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☐ **Scanned copy is best available.**

Declaration pages have a line.